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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/970,741	10/04/2001	Todd Little	BEAS-01056US1 SRM/KFK	1644
23910	7590	09/23/2004	EXAMINER SHRADER, LAWRENCE J	
FLIESLER MEYER, LLP FOUR EMBARCADERO CENTER SUITE 400 SAN FRANCISCO, CA 94111			ART UNIT 2124	

DATE MAILED: 09/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/970,741

Applicant(s)

LITTLE ET AL.

Examiner

Lawrence Shrader

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10/04/2001; 2/12/2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/12/2002.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. The Information Disclosure Statement filed on 2/12/2002 is acknowledged and has been considered.

#### ***Oath/Declaration***

2. The electronic file wrapper does not include a copy of the Oath/Declaration. The correspondence entitled "RESPONSE TO NOTICE TO FILE MISSING PARTS" indicates that on February 12, 2002 the Applicant submitted a "Declaration and Power of Attorney for Patent Application" with six (6) pages. However, only two of the six pages presently exist in the application having the headings: "TRANSMITTAL LETTER" and "POWER OF ATTORNEY BY ASSIGNEE UNDER 37C.F.R. §§3.71, 3.73(b)."

A new oath/declaration is required.

#### ***Specification***

3. The Applicant is requested to update the priority information on page 1 of the specification.

#### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

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5. Claims 3, 15, and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Each of the cited claims states "...dynamically generate output when the static template code is not appropriate" without giving any criteria to determine what is not appropriate.

The term "not appropriate " in claims 3, 15, and 25 is a relative term, which renders the claim indefinite. The term "not appropriate" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1 – 9; and 13 – 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Keller et al., U.S. Patent 6,212,672 (hereinafter referred to as Keller).

**In regard to claim 1:**

A system for code generation from a software application design product source data, comprising:

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*"a data navigation layer for interface with, and for providing navigational access to, a software application design product source data;*

*a template for specifying a code generation process to be applied to said source data;*

*a parser for parsing said template in accordance with any specified rules, filter, conditions, and notifiers, to generate code;*

*a code output mechanism for the output said generated code."*

See Figure 1 and column 3, lines 1 – 25, where Keller discloses a software development tool (a navigational layer for interface with and navigational access to a software application source data; see also column 20, lines 26 – 34) with a rule diagrams, state diagrams, and object diagrams for specifying code (a template). Figure 55 discloses the interpreter that parses the rules (also column 19, line 57 to column 20, line 12) to produce the intermediate language that is used to generate the output code (Figure 68; see also column 17, lines 53 – 63; column 19, lines 16 – 56).

**In regard to claim 2,** incorporating the rejection of claim 1:

*"...wherein said code output mechanism outputs said generated code to a storage device."*

Although Keller does not explicitly disclose that the generated code is outputted to a storage device, a storage device to receive the code would be inherent in a software generation development tool (see Figure 55).

**In regard to claim 3,** incorporating the rejection of claim 1:

*"...further comprising:*

*rules that implement template instructions and dynamically generate output when static template code is not appropriate."*

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See Figure 55 and column 4, line 6 to column, line 9 for dynamic generation of output..

**In regard to claim 4**, incorporating the rejection of claim 3:

*"...further comprising:*

*notifiers that include logic applied when a rule is invoked, to allow external components to be notified of the progress of the code generation process."*

Keller discloses external notification (column 13, lines 23 – 30).

**In regard to claim 5**, incorporating the rejection of claim 3:

*"...further comprising:*

*condition specifiers that include logic applied when a rule is invoked, to evaluate conditions and allow code generation depending on specific conditions."*

Keller discloses logic applied when a rule is invoked to allow code generation (column 5, line 24 to column 6, line 8).

**In regard to claim 6**, incorporating the rejection of claim 3:

*"...further comprising:*

*filters that include logic applied when a rules is invoked, to transform data."*

See column 6, lines 9 – 13.

**In regard to claim 7**, incorporating the rejection of claim 1:

*"...wherein said system further includes:*

*internal rules that provide basic functions to query symbol values from the data source, navigate through the data source, and open and close files."*

Keller discloses rules providing functions to query values from a database (Figure 71 and column 22, lines 59 – 66), navigate through the data source (column 22, lines 32 – 46), and open and close files (suggested at column 20, lines 25 – 34).

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**In regard to claim 8**, incorporating the rejection of claim 1:

*"...wherein said system further includes:*

*internal filters that provide generic transformation capabilities, such as lowercase/uppercase conversion."*

By exercising the rules and expressions the proper transformations and modifications are performed in order to map the abstract representation to source data (column 16, lines 37 – 66).

**In regard to claim 9**, incorporating the rejection of claim 1:

*"...wherein said navigation layer allows mapping of an abstracted data representation to said source data."*

See column 16, lines 37 – 65.

**In regard to claim 13** (a method): it is rejected for the same corresponding reasons put forth for the rejection of the corresponding system of claim 1.

**In regard to claim 14** (a method), incorporating the rejection of claim 13: it is rejected for the same corresponding reasons put forth for the rejection of the corresponding system of claim 2.

**In regard to claim 15** (a method), incorporating the rejection of claim 13: it is rejected for the same corresponding reasons put forth for the rejection of the corresponding system of claim 3.

**In regard to claim 16** (a method), incorporating the rejection of claim 15: it is rejected for the same corresponding reasons put forth for the rejection of the corresponding system of claim 4.

**In regard to claim 17** (a method), incorporating the rejection of claim 15: it is rejected for the same corresponding reasons put forth for the rejection of the corresponding system of claim 5.

**In regard to claim 18** (a method), incorporating the rejection of claim 15: it is rejected for the same corresponding reasons put forth for the rejection of the corresponding system of claim 6.

**In regard to claim 19** (a method), incorporating the rejection of claim 13: it is rejected for the same corresponding reasons put forth for the rejection of the corresponding system of claim 1.



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**In regard to claim 20** (a method), incorporating the rejection of claim 13: it is rejected for the same corresponding reasons put forth for the rejection of the corresponding system of claim 8.

**In regard to claim 21** (a method), incorporating the rejection of claim 13: it is rejected for the same corresponding reasons put forth for the rejection of the corresponding system of claim 9.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 10 – 12; 22 – 24; and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keller et al., U.S. Patent 6,212,672 in view of “GNAT Compiler Components” (hereinafter referred to as GNAT).

**In regard to claim 10**, incorporating the rejection of claim 9:

*“...wherein said parser provides functions to manipulate a scope stack, wherein said scope stack addresses said abstracted data representation.”*

**In regard to claim 11**, incorporating the rejection of claim 10:

*“...wherein said parser creates a hierarchical scope stack.”*

**In regard to claim 12**, incorporating the rejection of claim 10:

*“...wherein navigation within said scope stack is by a pointer.”*

In regard to claims 10 – 12, Keller discloses a software development tool to transform rule diagrams, state diagrams, and object diagrams for specifying code with an interpreter that

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parses the rules, but does not explicitly disclose that the parser creates and manipulates a scope stack with pointers. However, GNAT discloses the well-known use of a scope stacks used in hierarchical structure parsing, the stacks being referenced with pointers (page 8 near top, page 15 bottom to top of page 16). Scoped memory and the use of scope stacks would have been well know to one skilled in the art at the time of the invention. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to combine the features of the software development tool as taught by Keller with the well-known method of handling hierarchical program structures with a scope stack as taught by GNAT, because the combining provides a means to order and track information in nested procedures.

**In regard to claim 22** (a method), incorporating the rejection of claim 21: it is rejected for the same corresponding reasons put forth for the rejection of the corresponding system of claim 10.

**In regard to claim 23** (a method), incorporating the rejection of claim 22: it is rejected for the same corresponding reasons put forth for the rejection of the corresponding system of claim 11.

**In regard to claim 24** (a method), incorporating the rejection of claim 22: it is rejected for the same corresponding reasons put forth for the rejection of the corresponding system of claim 12.

**In regard to claim 25:**

A system for code generation comprising:

*""a data navigation layer for interface with, and for providing navigational access to, a software application design product source data, said navigation layer allows mapping of an abstracted data representation to said source data;*

*a template for specifying a code generation process to be applied to said source data;*

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*a parser for parsing said template in accordance with any specified rules, filter, conditions, and notifiers, to generate code, said parser provides functions to manipulate a scope stack, wherein said scope stack addresses said abstracted data representation, said parser creates a hierarchical scope stack, navigation within said scope stack is by a pointer;"*

See Figure 1 and column 3, lines 1 – 25, where Keller discloses a software development tool (a navigational layer for interface with and navigational access to a software application source data; see also column 20, lines 26 – 34) with a rule diagrams, state diagrams, and object diagrams for specifying code (a template). Figure 55 discloses the interpreter that parses the rules (also column 19, line 57 to column 20, line 12) to produce the intermediate language that is used to generate the output code (Figure 68; see also column 17, lines 53 – 63; column 19, lines 16 – 56) with source data mapped from the abstract data (column 16, lines 37 – 65), but does not explicitly disclose scope stacks. However, GNAT discloses the well-known use of a scope stacks used in hierarchical structure parsing, the stacks being referenced with pointers (page 8 near top, page 15 bottom to top of page 16). Scoped memory and the use of scope stacks would have been well know to one skilled in the art at the time of the invention. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to combine the features of the software development tool as taught by Keller with the well-known method of handling hierarchical program structures with a scope stack as taught by GNAT, because the combining provides a means to order and track information in nested procedures.

*"rules that implement template instructions and dynamically generate output when static template code is not appropriate;"*

See Keller Figure 55 and column 4, line 6 to column, line 9 for dynamic generation of output.

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*"notifiers that include logic applied when a rule is invoked, to allow external components to be notified of the progress of the code generation process;"*

Keller discloses external notification (column 13, lines 23 – 30).

*"condition specifiers that include logic applied when a rule is invoked, to evaluate conditions and allow code generation depending on specific conditions;"*

Keller discloses logic applied when a rule is invoked to allow code generation (column 5, line 24 to column 6, line 8).

*"filters that include logic applied when a rules is invoked, to transform data."*

See column 6, lines 9 – 13 of Keller.

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Shrader whose telephone number is (703) 305-8046. The examiner can normally be reached on M-F 08:00-16:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703) 305-9662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lawrence Shrader  
Examiner  
Art Unit 2124

18 September 2004

A handwritten signature in black ink, appearing to read 'Anil Khatri', with a long horizontal stroke extending to the right.

**ANIL KHATRI  
PRIMARY EXAMINER**